

REMARKS

The present application was filed on June 9, 2000 with claims 1-20. Claims 1, 10 and 19 are independent claims. In the outstanding Office Action, the Examiner: (i) objected to the specification due to alleged informalities; (ii) objected to claims 7 and 16 due to alleged informalities; (iii) rejected claims 1-3, 6-12 and 15-20 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,430,615 to Hellerstein et al. (hereinafter “Hellerstein”); and (iv) rejected claims 4, 5, 13 and 14 under 35 U.S.C. §103(a) as being unpatentable over Hellerstein in view of M. Basseville et al., “A Unified Framework for Statistical Change Detection,” IEEE, pp. 2586-2591, 1991 (hereinafter “Basseville”).

Regarding the objection to the specification due to alleged informalities, Applicants have amended the specification to correct such informalities, as per the Examiner’s suggestions. Withdrawal of the objection is therefore respectfully requested.

Regarding the objection to claims 7 and 16, Applicants respectfully point out that the phrase “the sub-model at least one of computes and stores . . .” is understood in U.S. patent claim practice to be equivalent to: (i) “the sub-model computes . . .;” (ii) “the sub-model stores . . .; or (iii) “the sub-model computes and stores . . .” Thus, Applicants assert that such claim language is not incorrect. Withdrawal of the objection is therefore respectfully requested.

Regarding the §102(e) rejection of claims 1-3, 6-12 and 15-20 based on Hellerstein, the Office Action contends that Hellerstein discloses all of the claim limitations recited in the subject claims. Applicants respectfully assert that Hellerstein fails to teach or suggest all of the limitations in claims 1-3, 6-12 and 15-20, for at least the reasons presented below.

It is well-established law that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Applicants assert that the rejection based on Hellerstein does not meet this basic legal requirement, as will be explained below.

The present invention, for example, as recited in independent claim 1, recites apparatus for providing on-line adaptive predictions for use by one or more applications used in association with

one or more operations for which predictions may be requested. The predictions are performed in accordance with at least one model which includes one or more sub-models. The apparatus comprises at least one processor operative to at least one of: (i) adapt at least one of the one or more sub-models, to be used in computing on-line predictions, when a change is detected in data associated with the one or more operations for which predictions may be requested; and (ii) compute one or more predictions, in response to one or more requests from the one or more applications, using the one or more sub-models determined to provide an optimum prediction combination.

Thus, the invention addresses a situation in which a predictive model includes one or more sub-models. By way of example, the invention describes how to selectively adapt a subset of the sub-models, rather than adapting the overall predictive model. One advantage of focusing on a subset is that, among other things, adaptation can occur more quickly (since fewer parameters must be estimated).

Hellerstein generally relates to predictive models but does not teach or suggest anything related to managing multiple sub-models. Specifically, Hellerstein discloses interactions between managers and agents in distributed systems in which a predictive model is shared between a manager and an agent so as to reduce the transmission of data by having the agent only send data not predicted by the model. Thus, only a single model is used for a manager-agent pair. There is no disclosure of combining models or adapting an overall model by selectively adapting sub-models. Hellerstein thus fails to teach or suggest all of the limitations of independent claims 1, 10 and 19. That is, by way of example, there is no disclosure of “adapting at least one of the one or more sub-models.”

Accordingly, Applicants respectfully assert that independent claims 1, 10 and 19 are patentable over Hellerstein for at least the reasons given above. Further, Applicants respectfully assert that claims 2, 3, 6-9, 11, 12, 15-18 and 20 are patentable over Hellerstein not only due to their respective dependence from independent claims 1, 10 and 19, but also because such claims respectively recite patentable subject matter in their own right.

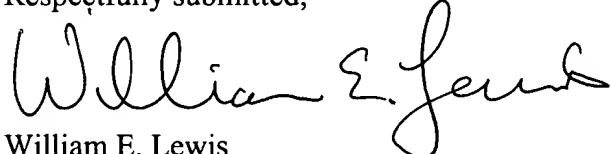
Regarding the §103(a) rejection of claims 4, 5 13 and 14 based on a combination of Hellerstein and Basseville, Applicants assert that such dependent claims are patentable not only due

to their respective dependence from independent claims 1 and 10, but also because such claims respectively recite patentable subject matter in their own right.

However, Applicants also believe that the Hellerstein/Basseville combination is improper under 35 U.S.C. §103(c), as adopted for cases filed on or after November 29, 1999. As recited in §103(c), subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. Since Hellerstein is considered §102(e) prior art, and since Hellerstein and the present application were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person (i.e., International Business Machines Corporation), the cited combination is improper.

In view of the above, Applicants believe that claims 1-20 are in condition for allowance, and respectfully request withdrawal of the §102(e) and §103(a) rejections.

Respectfully submitted,



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